

From owner-qrp-l@netcom.com Mon Oct 31 00:23:10 1994
From: rohrwerk@holonet.net
Date: Sun, 30 Oct 1994 19:11:58 -0800
Message-Id: <199410310311.TAA06018@holonet.net>
Subject: Re: 500 uH choke

On 10-24-94 jeffrey@math.hawaii.edu wrote to rohrwerk@holonet.net:

> John: All your message said was ``Just wind about'' (in regard to
> winding a 500 uH RFC). You have to finish your sentence or I won't get
> any sleep tonight trying to figure out what you were going to say!
>
> .73W, Jeff NH6IL
>
Got truncated somewhere, sorry!

Making one with toroids probably will take less space than paralleling some little ones and worrying about their mutual inductance. Just wind 35 turns on an FT-37-43 (if they fit, didn't check!), or 31 turns on an FT-50-43.

For that "homebrew look..."

: John Seboldt	rohrwerk@holonet.net	/	I am Bach of Borg...
: Amateur radio	K0JD...	/	your style will be
: Church of the Annunciation,		/	assimilated.
: Minneapolis		/	

-> Alice4Mac 2.3 E QWK Eval:05Mar94

From owner-qrp-l@netcom.com Sun Oct 30 21:39:38 1994
Date: Mon, 31 Oct 1994 10:22:56 +0000
From: david@rmit.edu.au (David Taylor)
Subject: CQ WW SSB DX Contest (Propagation)
Message-Id: <01HIXADLLB6A8WYJAR@pitvax.xx.rmit.edu.au>

QRPers,

Found listening on the HF bands fascinating during the weekend - the sheer volume of activity showing up where the band openings were.

Highlights from southern VK were:

* 10m was wide open to JA on Saturday morning, I heard that the JA's were working African stations on Sunday morning!

* Sunday was quieter, but on Monday morning just after sunrise 40m was open to Europe with literally wall-to-wall QRM - even different stations alternating CQ's on the same frequency. Heard 10 prefixes with a quick

sweep up and down the band before getting ready for work :-(

Was there any QRP SSB activity? Most stations seemed to be adopting the brute force approach amongst the QRM.

72

David Taylor
RMIT (Bundoora Campus)
david@rmit.edu.au

From owner-qrp-l@netcom.com Sun Oct 30 17:44:48 1994
Date: Sun, 30 Oct 1994 13:50:55 -0700 (MST)
From: Rick Zabrodski <zabrodsk@med.ucalgary.ca>
Subject: CQWW SSB 94 QRP
Message-Id: <Pine.SUN.3.91.941030134331.8791A-100000@ume>

Solar flux 98
A index 39
K index 5

Incredibly bad conditions up hear near the artic circle in the frozen north.
Worked a few south pacific and carribean stations plus the ususal JA's
but europe was hard to hear, let alone work. (One RA0 in the log)
The only consolation is that it was bad for everyone and the signals that
I could hear I could usually work.
Things can only improve, right?

Dr. Rick Zabrodski BSc, MD, CCFP(E) * VE6GK
EMAIL: zabrodsk@med.ucalgary.ca *
Packet: VE6GK@VE6YYC.#cgy.ab.can.na * "Power is no subsititute
Phone: (403) 271-5123 Fax: 225-1276 * for skill."

From owner-qrp-l@netcom.com Sun Oct 30 19:29:23 1994
Date: Fri, 28 Oct 1994 09:38:32 +0800
From: Raymond.Anderson@EBay.Sun.COM (Ray Anderson)
Message-Id: <9410281638.AA01322@uranium.EBay.Sun.COM>
Subject: designing 1:1 baluns for receivers

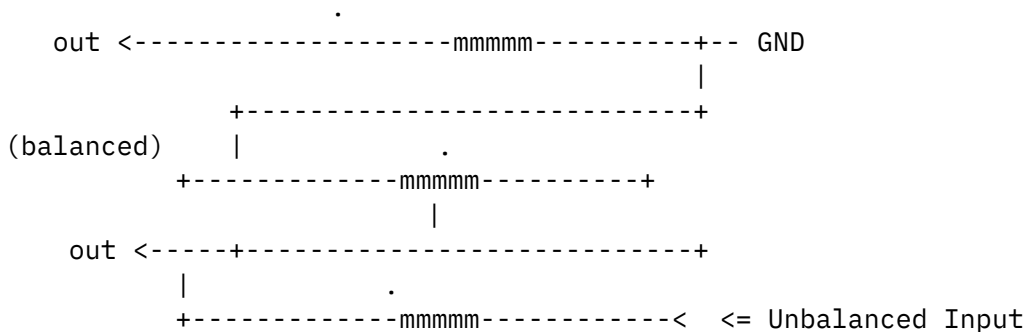
Dave W6MIK recently asked me a question about designing small baluns for use in a receiving converter between 40 and 70 MHz.

I've put together some notes on this and thought there might be interest amongst the other homebrewers on the list about this topic.

I'm certainly no expert on this topic, what I've put down comes from several of the common references on the subject. If there are any errors they are probably my own and I retain copyright to them :) If anyone on the list knows more about this than I do, (and I sure hope someone does) feel free to make corrections and comments.

72's de Ray WB6TPU
raymonda@uranium.ebay.sun.com

Here is a bit of information on building small baluns using toroids or 2-hole cores:



(dot on end of inductor indicates phasing)

1. The device is wound with trifilar wire.
(use 3 different colors if you can to help eliminate confusion)
2. First, determine impedance (Z_o) the balun will be used with. $Z_o = \sqrt{Z_{in} * Z_{out}}$
3. Rule of thumbs says the inductive reactance X_L of each winding should be 4 to 5 times Z_o .
(So for 75 ohms in/out $X_L = 300$ ohms to 375 ohms)
4. Determine the inductance for the X_L at the lowest frequency you want to use the device at.
(for $X_L = 300$ @ 40 MHz $L = X_L / (2 * \pi * F) = 1.2$ microHenries)

5. Select the core material: for HF to low VHF Amidon type 63 or 61 Ferrite material would be appropriate. These have μ values of 40 and 125 respectively. At lower frequencies you would want to use something with a μ of several hundred. At higher frequencies a μ of 5 - 10 using powdered iron material might be appropriate.
6. Select the core size: FT23 is .23 inch diameter which is one of the smallest sizes commonly available. Bigger parts can handle more power before saturating as a rule. Choose the size that fits your application.
7. Look up A_l value for the core material/size in a catalog/databook. core FT23-63 $A_l=7.9$
8. Calculate the number of turns required.
 $N=\sqrt{L/A_l} \times 1000$ (L is in mH)
So $N=\sqrt{.0012/7.9} \times 1000 = 12.3$ turns
9. Wind 12 turns trifilar according to diagram above.

The same logic works if you are going to use double hole "binocular" balun cores. The number A_l will be different but is obtained from the core manufacturers literature.

With small cores you need to use small wire. #28 or #32 or even #40 might be appropriate for FT23 size core. The higher the μ value and the lower the frequency, the more turns you are going to need.

There are other topologies for 1:1 baluns, but all the calculations are still the same, just different number of windings and connections.

We haven't considered power levels or core saturation since we have assumed we are making the balun for a low power receiver application. For higher power applications there are additional things that need to be considered or else the core will saturate with magnetic flux, and the coupling between windings will decrease and the thing won't work correctly (and may go up in flames).

See Sevicks books on Transmission line transformers, The ARRL Solid-State Design Book, and Haywards book on RF design for other good info on designing these type baluns. The Amidon catalog and Ferroxcube catalog amongst others also have some good info as well as the A_l values for their particular cores.

Ray WB6TPU

From owner-qrp-l@netcom.com Sun Oct 30 18:34:15 1994
Message-Id: <199410271444.AA18068@orion.aoc.nrao.edu>
Date: Thu, 27 Oct 1994 08:44:15 -0600
From: Dave Finley <dfinley@aoc.nrao.edu>
Subject: Got the Fox!

N6ULU came booming in here in New Mexico, as strong as 599 last night. Great signal -- that must be some antenna he has.

For a variety of reasons, this was the first time I've been able to work one of the Foxes. It was nice to be able to read about the Fox Hunt on the net, then go home and work him.

For readers who haven't tried this, fire up the rig and get on the air -- it's fun!

73,

Dave, N1IRZ

From owner-qrp-l@netcom.com Mon Oct 31 00:02:29 1994
From: rohrwerk@holonet.net
Date: Sun, 30 Oct 1994 19:11:59 -0800
Message-Id: <199410310311.TAA06021@holonet.net>
Subject: Re: It Lives! (NorCal 40

On 10-25-94 bgobrick@random.ucs.mun.c wrote to pepperb@gov.on.ca:

> Fianlly does anyone use Q-dope anymore (I see that Ocean Electronic
> sells it).

Sure! The GC brand is carried at our local supply house. I have only used it on my VFO coil that really needs the stability. It's still recommended by Doug De Maw in his QRP books.

: John Seboldt	rohrwerk@holonet.net	/	I am Bach of Borg...
: Amateur radio	K0JD...	/	your style will be
: Church of the Annunciation,		/	assimilated.
: Minneapolis		/	

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From owner-qrp-1@netcom.com Mon Oct 31 00:15:45 1994
From: rohrwerk@holonet.net
Date: Sun, 30 Oct 1994 19:12:02 -0800
Message-Id: <199410310312.TAA06023@holonet.net>
Subject: Re: Keys for BACKPACKING

On Fri, 28 Oct 1994 WB3LGC@aol.com wrote:

> I am collecting information on KEYS for use while backpacking. Weight
> is an important factor, I don't think I'll haul my Bencher. It needs
> to be "solid" too, the Bencher wouldn't take the ride without special
> packaging and more weight.

How about two buttons on top of the keyer or rig? Simple, mere grams of extra weight, hardly any space. Not the most elegant-feeling solution, to be sure.

: John Seboldt	rohrwerk@holonet.net /	I am Bach of Borg...
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: Church of the Annunciation,	/	assimilated.
: Minneapolis	/	

-> Alice4Mac 2.3 E QWK Eval:05Mar94

From owner-qrp-1@netcom.com Sun Oct 30 14:50:21 1994
From: dwebster@netcom.com (Dennis Webster)
Message-Id: <199410301828.KAA11943@netcom2.netcom.com>
Subject: Re: Newsgroup vs. mailer
Date: Sun, 30 Oct 1994 10:28:45 -0800 (PST)

The problem with News vs. Mailer, at least here on Netcom is that the news reader is slow..slow..slow. I know they are working on it, but the problem doesn't seem to be solved yet. Also, I can receive mail on my packet station through a local internet gateway. Trying to get into Usenet from there is a real problem.

From owner-qrp-1@netcom.com Sun Oct 30 18:56:21 1994
Date: Sun, 30 Oct 94 22:17 GMT
From: oddjob@cix.compulink.co.uk (Stephen Walters)
Subject: QRP+ prices in the UK
Message-Id: <memo.841356@cix.compulink.co.uk>

Price disparity,

In the UK, this radio sells for 699ukp!!!!
And is imported/sold by 2 agencies...

Very pricey!!!

A couple of people has asked about price or contact info for the Index Labs QRP+ so here it is.

QRP+ - \$595.00 + shipping

oddjob@cix.compulink.co.uk

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> From owner-qrp-1@netcom.com Sun Oct 30 09:40:03 1994
> Received: from mail2.netcom.com (mail2.netcom.com [192.100.81.122]) by
> cix.compulink.co.uk (8.6.9/8.6.9) with ESMTP id JAA15932; Sun, 30 Oct
> 1994 09:40:03 GMT
> Received: by mail2.netcom.com (8.6.9/Netcom)
> id XAA23864; Sat, 29 Oct 1994 23:54:21 -0700
> Received: from sed.csc.com by mail2.netcom.com (8.6.9/Netcom)
> id XAA23848; Sat, 29 Oct 1994 23:54:17 -0700
> Received: from wb3ffv by sed.csc.com with uucp
> (Smail3.1.28.1 #7) id m0r1UBW-0006LMC; Sun, 30 Oct 94 01:56 EST
> Received: by wb3ffv.wb3ffv.ampr.org (Smail3.1.28.1 #3)
> id m0r10zP-00080eC; Sat, 29 Oct 94 21:23 EDT
> From: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org (Mike Czuhajewski)
> To: qrp-1%netcom.com@anagld.netcom.com
> Subject: Newsgroup vs. mailer
> Date: Sat, 29 Oct 94 21:23:19 EST5EDT
> Message-Id: <19940ct29.212319.27127@wb3ffv.ampr.org>
> X-Mailer: UniBoard 1.30b S/N 329931
> Sender: owner-qrp-1@netcom.com
> Precedence: list
> Apparently-To: oddjob@cix.compulink.co.uk
>
> Re NH6ILs comments about not everyone getting USENET--the access I get
> from this BBS, at the dollar amount I am comfortable paying every
> month, gives me e-mail plus rec.radio. I can read anything in
> rec.radio but can only post to rec.radio.amateur.whatever. I do not
> have any access to alt.whatever. The point here is that there are
> quite a few different levels of access to various things, depending on
> what system one is running on. His comments about signal to noise
> ratio on the rec.radio.amateur newsgroups is right on--the specialty
> ones like antenna and homebrew are very good, and others are,
> well....never mind... QRP would certainly fall into the specialty
> group, and thus would probably have a good signal to noise ratio. It
> would also bring a lot more folks back--not having the daily digest has
> certainly hurt us. And I for one find it much easier to browse through
> a newsgroup than it is to maintain a mailbox. My vote is starting to
> swing slightly toward newsgroup. 73 and Queue Our Pea DE WA8MCQ
> --
> Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org
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> E-Mail: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org
> The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
> Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

oddjob@cix.compulink.co.uk

From owner-qrp-1@netcom.com Sun Oct 30 19:39:46 1994
Date: Sun, 30 Oct 1994 16:54:43 -0600 (CST)
From: Conard F Murray <CFM5723@tntech.edu>
Subject: SCAF Design
Message-Id: <01HIW7LE5BJMBHAITB@tntech.edu>

Greetings Everyone!

I found a couple of MF10CCN SCAF filter chips laying around and I want to build a CW filter out of them. The National Linear databook has some generic stuff in it, but I was wondering if anyone on the list had any favorite circuits. Also, has anyone done anything with the TMS320 series of DSP chips?

Thanks and 72,
Conard WS4S

R&D Engineer Electrical Engineering Department Tennessee Tech University
Cookeville, TN (just one building away from Jeff, AC4HF)